APPENDIX K

Programmatic Biological Assessment
Project Consistency Evaluation Forms

Programmatic Biological Assessment Project Consistency Evaluation Form*
Upper Great Plains Region Wind Energy Development Program

(for USFWS Internal Use Only)	*TAILS S7 Bundle #:*	
	Individual TAILS Log #:	

Project Proponent

Project Name:	Philip Wind Project	Developer:	Philip Wind Partners, LLC
State:	South Dakota	City:	Chicago
County:	Haakon County	State:	Illinois
Township, Range & Sections:	S1-17, 20-24, T3, R18; S1-24, T3, R19; S1-19, T3, R20 S3-10, 17, 18 T3, R21	POC:	Bristi Cure
S1-3, 9-17, 19-36, T4, R18 S1-36, T4, R19 S1-36, T4, R20 S4-9, 15-22, 27-34, T4, R21 S24, 25, 35, 36, T5, R18 S4, 8-36, T5, R19 S7, 16-23, 25-36, T5, R20 S30-32, T5, R21		Phone:	(303)557-4489

Federal Agency/Point of Contact

Fish & Wildlife Service Ecological Services Field Office		Western Area Power Administration	
City:	Pierre	City:	Huron
State:	South Dakota	State:	South Dakota
POC:	Natalie Gates	POC:	Hilary Morey
Phone:	(605)224-8693 Ext. 227	Phone:	(605)570-1377

For actions involving USFWS Land interests:

USFWS Wetland Management District: Lake Andes

City: Pickstown State: South Dakota

POC: Elizabeth Julian

Phone: (605)487-7603

	Y	N
USFWS Property Interest	☐	☒
Grassland Easement Exchange	☐	☒

Project Description Overview with Best Estimates

Construction Initiation Date:	Q3 2025 or later	Max. Turbine Ht:	664 ft	Project Area Size:	~68,200 ac
Construction Completion Date:	Q4 2026 or later	Turbine Pad Size:	0.18 ac (permanent)	Wind Reserve Area Size:	N/A
Number Turbines:	up to 91	Miles (km) of New Road:	55 mi (88.5 km)	Power Generating Initiation Date:	Q4 2026
Turbine Tower Height (ft/m):	334 ft to 394 ft	Miles (km) Improved Road:	25 mi (40.2 km)	Project Termination Date:	2057
Turbine RSA:	19,285 sq ft	Miles (km) Existing County Rd:	20 mi (32.2 km)		

Turbine Size (MW), Make & Model: V 166-4.5 on 115m hub height with operational uprate to 6.1 MW

Collector Lines from Turbine to Substation: Miles Buried: 138 mi Miles Overhead: 7 mi

To help demonstrate compliance with the BMPs, Species Specific Avoidance and Minimization Measures, a complete application must include maps of the project area and associated species/habitat/buffer zones. Maps attached Yes ■ No ☐

Land Cover Types Affected

	Yes	No	Acres: Private	State	Federal	Subtotal	% Total	Description/Comments
Native Grass	☒	☐	6.52	0	0	6.52	5.75%	WEST field-verified data (2022)
Tame Grass	☒	☐	14.54	0	0	14.54	12.7%	WEST field-verified data (2022)
Agricultural	☒	☐	93.08	0	0	93.08	81.6%	NLCD cropland layer
Wetland	☐	☒	0	0	0	0	0	None identified; NWI data layer
Riparian	☐	☒	0	0	0	0	0	None identified; NWI data layer
Trees	☐	☒	0	0	0	0	0	None identified; NLCD
Other	☐	☒	0	0	0	0	0	Primarily NLCD development and barren lands categories
Total			114.14	0	0	114.14	100%	Most conservative estimate used incorporating largest build-out and maximum permanent disturbance areas

ESA Listed (L), Proposed (P) and Candidate (C) Species Affected (Check Boxes)

Plants

- ☐ EP Fringed Orchid (L)
- ☐ Mead's Milkweed (L)
- ☐ Prairie Bush Clover (L)
- ☐ Ute Ladies'-Tresses (L)
- ☐ WP Fringed Orchid (L)
- ☐ Whitebark Pine (C)

Invertebrates

- ☐ American Burying Beetle (L)
- ☐ Dakota Skipper (L)
- ☐ Higgins Eye (L)
- ☐ Poweshiek Skipperling (L)
- ☐ Salt Creek Tiger Beetle (L)
- ☐ Scaleshell Mussel (L)

Fish

- ☐ Bull Trout (L)
- ☐ Pallid Sturgeon (L)
- ☐ Topeka Shiner (L)

Reptiles

- ☐ Eastern Massasauga (C)

Birds

- ☐ G. Sage Grouse (C)
- ☐ Int. Least Tern (L)
- ■ Piping Plover (L)
- ■ Rufa Red Knot (L)
- ☐ Sprague's Pipit (C)
- ■ Whooping Crane (L)

Mammals

- ☐ Black-footed Ferret (L)
- ☐ Canada Lynx (L)
- ☐ Gray Wolf (L)
- ☐ Grizzly Bear (L)
- ☐ Indiana Bat (L)
- ■ N. Long-Eared Bat (L)

☒ **Project proponent has reviewed the Programmatic Wind Energy EIS and BA, Appendix B of the BA relating to Species Consistency Evaluation Forms, and the U.S. Fish and Wildlife Service Land-Based Wind Energy Guidelines.**

Commitment to incorporate applicable BMPs and Species-Specific Avoidance & Minimization Measures into the project plan:

Bristi Cure	Docusigned by: Bristi Cure 866EB31B5B28471...	12/31/2024
Project Proponent (Point of Contact)	Signature	Date

Agency Verification of Compliance with the Programmatic Wind Energy Biological Assessment:

BRIAN PAULY	Digitally signed by BRIAN PAULY Date: 2025.04.21 16:25:54 -05'00'	
Western Area Power Administration (Point of Contact)	Signature	Date
Christopher Swanson, Project Leader	CHRISTOPHER SWANSON Digitally signed by CHRISTOPHER SWANSON Date: 2025.03.19 08:12:43 -05'00'	
U.S. Fish & Wildlife Service (Point of Contact)	Signature	Date
Natalie Gates, Fish and Wildlife Biologist	NATALIE GATES Digitally signed by NATALIE GATES Date: 2025.03.18 14:42:55 -05'00'	
U.S. Fish & Wildlife Service (ES Field Office Lead Biologist)	Signature	Date

***Version 3: March 2015**

Programmatic Biological Assessment Species Consistency Evaluation Form
Upper Great Plains Region Wind Energy Development Program
Impact Information and Consistency Determination

Northern long-eared bat (*Myotis septentrionalis*)

Project Name: Philip Wind Project

Company: Philip Wind Partners, LLC

Best Management Practices

☒ All general BMPs, as stated in table 2.3-2 of the final *Programmatic Environmental Impact Statement for the Upper Great Plains Region Wind Energy Program* and table 4.5-1 of the final *Programmatic Biological Assessment for the Upper Great Plains Region Wind Energy Program,* would be implemented as applicable, during all phases of the project (i.e., site characterization, construction, operations, and decommissioning).

Species-Specific Avoidance Measures

Species-specific avoidance and minimization measures for this form have been updated in response to the 2023 uplisting of the northern long-eared bat (NLEB; *Myotis septentrionalis*) to endangered under the Endangered Species Act (ESA) and the availability of the USFWS's October 2024 *Land-based Wind Energy Voluntary Operational Avoidance Guidance for the Northern Long-eared Bat (Myotis septentrionalis*) (the wind guidance). This form is aligned with that guidance and will be updated if/when the wind guidance is updated. The wind guidance articulates how (new or existing) land-based wind energy facilities can operate such that incidental take of NLEB under the ESA is not "reasonably certain to occur" and describes standard post-construction monitoring to validate the effectiveness of the guidance at individual wind facilities. For wind projects within the current wind range of the species, the presence of migrating NLEBs is assumed in the airspace affected by wind turbines while the bats are migrating, even if the species is not detected onsite during summer surveys. The map used by the USFWS when evaluating the impacts of wind projects to the NLEB can be found here: https://www.fws.gov/library/collections/land-based-wind-energy-voluntary-avoidance-guidance-northern-long-eared-bat.

☒ For projects within the current wind range and/or consultation range (potential summer habitat) of the NLEB, contact the local USFWS Ecological Services Field Office (Field Office) to coordinate habitat evaluations and determine if the project area contains or is within 3.0 miles (4.83 km) of recent summer confirmed NLEB summer occurrence record(s). The USFWS recommends turbines be sited > 3 miles (4.8 km) away from recent summer occurrences and > 1,000 ft (300 meters) away from suitable roosting habitat to the edge of the turbine rotor-swept area.

☒ If species summer presence is not known, summer presence may be assumed if the project falls within the consultation range of the NLEB. If a project proponent instead chooses to conduct surveys to determine summer presence/probable absence, a survey plan aligned with the most recent version of the *Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines* (survey guidelines) shall be submitted to the USFWS for approval by the local Field Office prior to conducting preconstruction surveys within suitable foraging and roosting habitat.

☒ Within confirmed or assumed NLEB summer habitat, do not remove live or dead trees during the NLEB's active period, including the spring and fall migratory periods. Avoid tree cutting in a way that would fragment a forested connection (e.g., tree line) between two or more forest patches of at least 5 acres. For further guidance on tree removal, coordinate with the local Field Office prior to any removal activities.

☒ Identify potential NLEB hibernacula within project boundaries and surrounding 10 mile buffer as recommended in the USFWS's Potential Hibernaculum Survey Guidance (App. H of the survey guidelines). Do not site turbines ≤ 10 miles (16 km) from NLEB hibernacula.

☒ Disturbance of hibernacula is prohibited throughout the year. Do not clear woody vegetation, snags, dead/dying trees, and trees of any size ≤ 0.25 miles (400 meters) from NLEB hibernacula nor ≤ 5 miles from NLEB hibernacula during spring staging and fall swarming periods. Do not conduct drilling or blasting activities ≤ 5 miles from NLEB hibernacula during the entire active bat season.

Programmatic Biological Assessment Species Consistency Evaluation Form
Upper Great Plains Region Wind Energy Development Program
Impact Information and Consistency Determination

Northern long-eared bat (*Myotis septentrionalis*)

Species-Specific Minimization Measures

☒ Implement a seasonal blanket curtailment (recommended), an algorithm-based informed curtailment (ABIC), or real-time acoustic-activated smart curtailment strategy approved by USFWS that are at least as protective as blanket curtailment. Blanket curtailment is described in the NLEB wind guidance. Algorithm-based and real-time acoustic curtailment strategies are described in *Land-based Wind Energy Voluntary Operational Avoidance Guidance for the Tricolored Bat (Perimyotis subflavus).* If using algorithm-based or real-time acoustic curtailment strategies, leave the following seasonal blanket curtailment box unchecked, and elaborate further in the explanation of conservation measures section.

Seasonal Blanket Curtailment

☒ **Spring (migration/staging):** From 1/2 hour before sunset to 1/2 hour after sunrise, feather turbine blades when wind speeds are below the manufacturer's cut-in speed and temps are > 40°F (4.44°C).

Summer (pup season):

- **If the project is outside the consultation range or probable summer absence is determined** based on completion of surveys following the USFWS NLEB survey guidelines, continue feathering below manufacturer's cut-in speeds as described above for the spring season.
- **If summer presence is either assumed or determined based on completion of surveys** following the USFWS NLEB survey guidelines, from 1/2 hour before sunset to 1/2 hour after sunrise, feather turbines and do not cut-in until wind speeds are ≥ 5.0 m/sec (11.2 mph) when temps are > 40°F (4.44°C).

Fall (migration/swarming): From 1/2 hour before sunset to 1/2 hour after sunrise, feather turbines and do not cut-in until wind speeds are ≥ 5.0 m/sec (11.2 mph) when temps are > 40°F (4.44°C).

Seasonal Dates for Blanket Curtailment in UGP Service Area States			
STATES	**SPRING**	**SUMMER**	**FALL**
IA, NE	April 1 – May 14	May 15 – July 31	Aug. 1 – Nov. 15
MN, MT, ND, SD Plains	April 15 – May 31	June 1 – Aug. 15	Aug. 16 – Oct. 31
SD Black Hills	May 1 – June 14	June 15 – Aug 31	Aug 16 – Sept. 30

☒ For projects implementing blanket or smart curtailment, conduct 1 year of standardized post-construction monitoring during the entire NLEB active season (IA, NE = Apr 1 - Nov 15; MN, MT, ND, SD Plains = Apr 15 - Oct 31; SD Black Hills = May 1 – Sept 30) that meets or exceeds PCM frequencies, g-values, and other criteria, including bat identification requirements, outlined in the wind guidance. Additional efficacy monitoring, as outlined in the NLEB wind guidance, would be based on results of previous PCMM efforts. For projects implementing ABIC curtailment, adhere to criteria in the *Land-based Wind Energy Voluntary Operational Avoidance Guidance for the Tricolored Bat (Perimyotis subflavus).* Monitoring may be modified if no northern long-eared bats are detected as outlined in the wind guidelines.

☒ Annual operating reports (showing turbine operation statistics relative to date, time, and environmental factors), regardless of monitoring effort, shall be submitted to the USFWS local Field Office by January 31, annually.

☒ Any take of listed species shall be reported to the local USFWS Field Office and USFWS Office of Law Enforcement within 24 hours of discovery.

Programmatic Biological Assessment Species Consistency Evaluation Form
Upper Great Plains Region Wind Energy Development Program
Impact Information and Consistency Determination

Northern long-eared bat (*Myotis septentrionalis*)

Impact Information

Within current consultation range of NLEB (potential summer habitat present)? ☒ Yes ☐ No

Coordinated with USFWS on NLEB record(s) in area? ☒ Yes ☐ No

Preconstruction summer and/or hibernacula habitat evaluations conducted in coordination with USFWS? ☒ Yes ☐ No Dates: September 13, 2022

Minimum distance from rotor-swept areas to suitable roosting habitat (1,000 ft recommended) 2,640 ft.

Habitat within 1000 ft of rotor-swept areas 0 acres.

Distance from closest proposed turbine location to known hibernacula (>10 mi required for turbine siting; >0.25 mi required for woody vegetation clearing): 68 miles

Survey study plans submitted to and approved by USFWS prior to summer surveys? ☒ Yes ☐ No Methods and results discussed with USFWS via consultation meetings

Summer and hibernacula habitat surveyed for NLEB presence/probable absence using the USFWS's survey guidelines? ☒ Yes ☐ No Dates of survey: April 11 - Nov 7, 2018

Survey report provided to USFWS? ☒ Yes ☐ No Methods and results discussed with USFWS via consultation meetings

Results of surveys: ☐ Occupied (spp. detected) ☒ Probable Absence (not detected)

Version of USFWS survey guidelines used: 2018 year or version Range-Wide Indiana Bat Summer Survey Guidelines April 2018

Manufacturer's turbine cut-in speed: 3.0 m/sec

Turbine cut-in speed during fall migration risk: 5.0 m/sec

Turbine cut-in speed during summer risk: 3.0 m/sec

Map of project footprint and species habitat attached? ☒ Yes ☐ No

Programmatic Biological Assessment Species Consistency Evaluation Form
Upper Great Plains Region Wind Energy Development Program
Impact Information and Consistency Determination

Northern long-eared bat (*Myotis septentrionalis*)

Explanation of conservation measures to be implemented and effects determination of "no effect" or "not likely to adversely affect" (attach additional pages as necessary):

The U.S. Fish and Wildlife Service (Service) has been coordinating with Western Area Power Administration (WAPA) and Philip Wind Partners, LLC regarding the development of the proposed Philip Wind Project (Project), an approximately 300 MW wind energy facility in Haakon County, South Dakota. This form documents compliance with the Endangered Species Act of 1973 (as amended) for northern long-eared bats (Myotis septentrionalis, NLEB) following the Service's Land-based Wind Energy Voluntary Avoidance Guidance for the Northern Long-eared Bat (Myotis septentrionalis)(issued in October 2024) using the blanket curtailment approach, or a future method agreed upon by the Service and Philip Wind Partners, LLC.

The original PBA NLEB Consistency Evaluation Forms were completed and accepted by the USFWS in April 2023 and determined that the Proposed Action may affect but is not likely to adversely affect the NLEB. Since completion and acceptance of the PBA Consistency Evaluation Forms, the USFWS released the final Land-based Wind Energy Voluntary Operational Avoidance Guidance for the Northern Long-eared Bat in October 2024 (USFWS 2024), which includes recommended conservation measures (e.g. curtailment windows) that differ from those in the 2015 version of the PBA Consistency Evaluation Form. The PBA allows for amendments to be made when new information reveals effects on species or critical habitat (WAPA and USFWS 2015). WAPA and USFWS completed an amendment to the PBA in December of 2024, and updated the NLEB Consistency Evaluation Form to reflect the finalized NLEB avoidance guidance. Philip Wind Partners agreed to adhere to the new guidance, and updated NLEB Consistency Evaluation forms were completed by the Project, WAPA and USFWS in December of 2024. Based on the commitments concurred with, there is a negligible risk of direct or indirect impacts to NLEB, and there is no change in the significance of impacts to NLEB between the publication of Draft EA and the Final EA following the issuance of the final NLEB guidance (USFWS 2024). WAPA determined the Proposed Action may affect but is not likely to adversely affect the NLEB.

The Philip Wind Project falls outside of the current range area of influence (AOI) for NLEB as found on the Species Profile for Northern Long-Eared Bat (Myotis septentrionalis) (fws.gov). However, Philip Wind conducted two pre-construction studies to evaluate bats, specifically NLEB in the Project area. The survey methodologies were shared with and approved by the Service in a meeting on February 20, 2018. The first survey was an acoustic study using five detection stations for 892 detector nights (Tetra Tech 2019). This resulted in 14,262 bat calls for which none were classified as NLEB. The second was a summer foraging and roosting habitat evaluation (WEST 2022) completed following guidance from the 2021-2022 USFWS Range-wide Indiana Bat Survey Guidelines (USFWS 2022) and field validated on September 13, 2022, the results of which are depicted on the attached map. Suitable summer foraging and roosting habitat was defined as patches of trees 10 acres or greater and included a 1,000-foot buffer (hereafter, connected habitat buffer) as recommended by the Service's guidance. No turbines have been sited within 0.5 mile of these connected habitat buffers, which are depicted in the attached figure. NLEB migrate from summer habitat to hibernacula in the fall. NLEB have been documented to travel up to 35 miles from summer foraging habitat to hibernacula (USFWS 2022). The Project is approximately 68 miles from the nearest known hibernaculum in Black Hills, South Dakota.

In summary, pre-construction surveys of the Philip Wind Project in 2018 and 2022 showed probable absence of the NLEB in the Project Area and the Project area falls outside the current range AOI for NLEBs. In addition, based on previous consultation with the Service during the initial completion of the CEF for NLEB, there are no known northern long-eared bat maternity colonies within 3 miles of the Project area or known occurrences of NLEB within the Project boundary. Therefore, Philip Wind Partners, LLC commits to the following operating (Table 1), monitoring, and reporting procedures for the Project:

Programmatic Biological Assessment Species Consistency Evaluation Form
Upper Great Plains Region Wind Energy Development Program
Impact Information and Consistency Determination

Northern long-eared bat (*Myotis septentrionalis*)

Table 1. Operational measures (cut-in speeds in miles per hour [mph] and meters per second [m/s]) by date, for NLEB by season, at the Philip Wind Project wind facility in Haakon County, South Dakota. At minimum, turbines should be feathered below the curtailment wind speeds starting 30 minutes before sunset to 30 minutes after sunrise when temperatures measured at the nacelle are above 40°F.

Season	Dates	Feathering Below Cut-in Speed	When
Spring (staging/migration)	April 15 – May 31	6.7 mph (3.0 m/s)	From ½ hour before sunset to ½ hour after sunrise
Summer (pup season)	June 1 – Aug. 15	6.7 mph (3.0 m/s)	From ½ hour before sunset to ½ hour after sunrise
Fall (migration/swarming)	Aug. 16 – Oct. 31	11.2 mph (5.0 m/s)	From ½ hour before sunset to ½ hour after sunrise

Operational measures (cut-in speeds in miles per hour [mph] and meters per second [m/s]) by date, for NLEB by season, at the Philip Wind Project in Haakon County, South Dakota. At minimum, turbines should be feathered below the curtailment wind speeds starting 30 minutes before sunset to 30 minutes after sunrise when temperatures measured at the nacelle are above 40°F.

The Project should feather turbines below these cut-in speeds. Feathering occurs when turbine blades are pitched parallel with the prevailing wind direction to slow rotation speeds (generally less than 1 rotation per minute).
In addition to implementing the operational measures specified in Table 1, Philip Wind Partners, LLC will develop and implement a detailed post-construction mortality monitoring plan (PCMM) in coordination with the Service's South Dakota Field Office that will include specifics on the numbers of turbines searched, size of plots, frequency of searches, details on bias correction trials, and statistical analyses. By January 31 of each year, Philip Wind Partners, LLC will provide an annual report to the Service's South Dakota Field Office that describes the operational measures implemented that year, along with the methods and results of any monitoring as prescribed in the detailed PCMM plan created in coordination with the Service. The framework for the monitoring program is as follows:

The Project will develop and implement a detailed monitoring plan in consultation with the Service and will use EoA to design a post-construction mortality monitoring plan or describe the alternative sampling design method to achieve a minimum cumulative detection probability of g=0.2. The plan will specify data to be collected, searcher efficiency trials, carcass persistence trials, area correction, and other appropriate measures. The Project may periodically consult with the Service regarding cost-effective and logistically feasible changes to the monitoring approach and implementation of applicable new methods or regulatory changes.

Efficacy monitoring protocol will consist of two components: (1) post-construction fatality monitoring for one year designed to achieve a minimum detection probability (g) of 0.2 or the agreed upon alternative approach during the entire active season for bats (April 15 – October 31); and (2) post- construction fatality monitoring every 7 years afterward designed to achieve a g of 0.08" or the agreed upon alternative approach during the entire active season for bats (April 15 – October 31).

Programmatic Biological Assessment Species Consistency Evaluation Form
Upper Great Plains Region Wind Energy Development Program
Impact Information and Consistency Determination

Northern long-eared bat (*Myotis septentrionalis*)

If any northern long-eared bat carcasses are found during PCMM, Philip Wind Partners, LLC will report the fatality within 24 hours of discovery, which by definition will require a species identification by a qualified biologist, to the South Dakota Field Office (Natalie Gates, Fish & Wildlife Biologist, 605-220-3881) and the Service's Office of Law Enforcement (OLE) in Bismarck, North Dakota. If bat identification of a found carcass is not possible, genetic testing will occur, while waiting for results the project will continue to operate. In addition, following discovery of the species, the Project will immediately work with the Field Office to determine whether additional conservation measures, such as avoidance, are appropriate for northern long-eared bats (e.g., cut-in speeds).

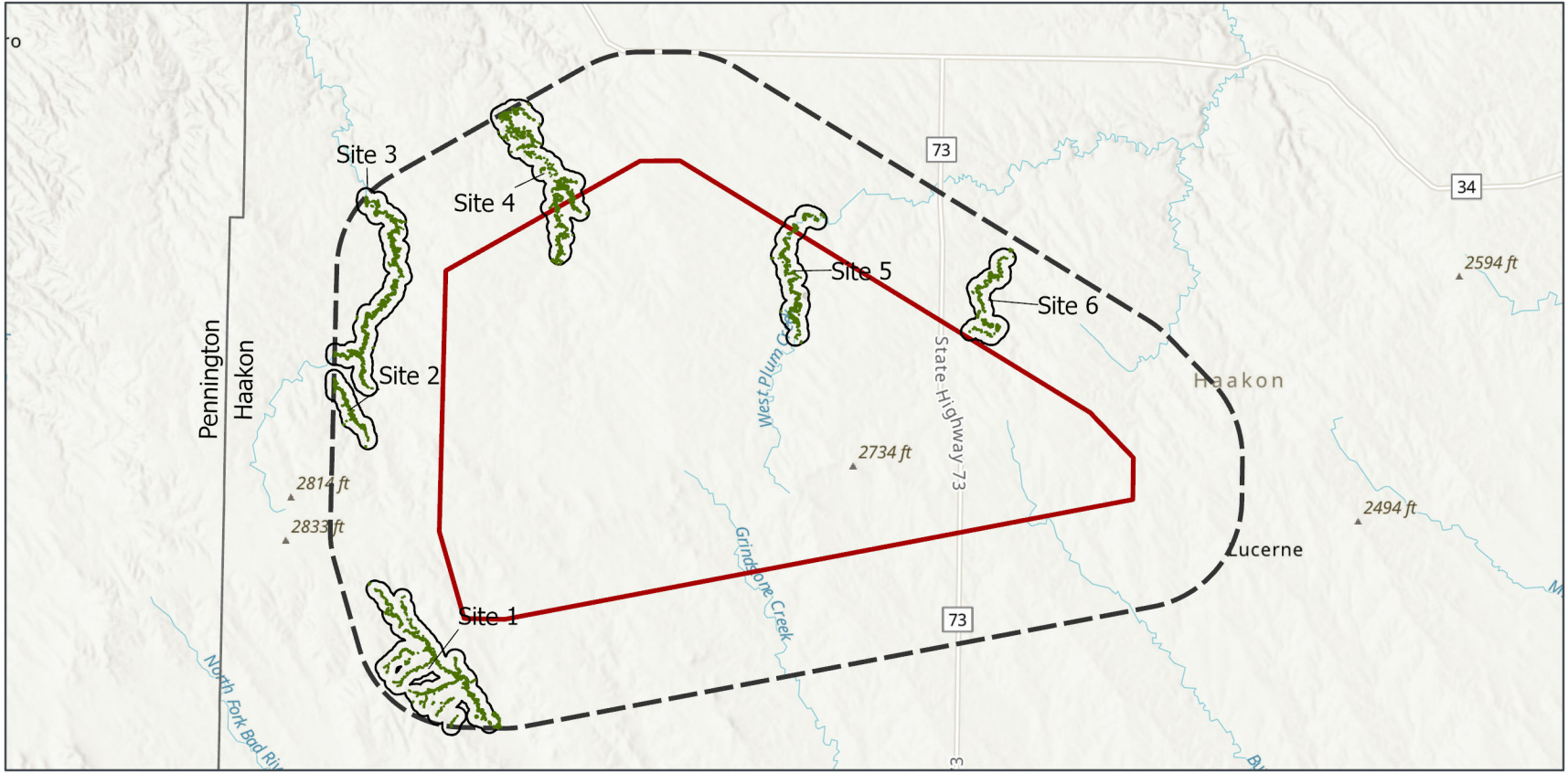
Philip Wind Partners will complete tree clearing activities outside of the NLEB active period, including the spring and fall migratory periods. The tree clearing that is anticipated by the project will be 200 feet in width through potential summer habitat so that the Project does not segment treed areas by greater than 1,000 feet.

Annual reports will be sent to the appropriate local Field Office by January 31st for the previous year. Annual reports will reaffirm that operational commitments were implemented (i.e., operating at cut-in wind speeds and if post-construction mortality monitoring was implemented as designed). Annual reports following the once every 7-year series post-construction mortality monitoring effort will include compiled bat fatality data for all bat species using this reporting form (Region 3 Wind Post-Construction Monitoring Bat Reporting Form | FWS.gov). Once the report is submitted, the Project should continue to operate under the conditions described herein and the Service will provide an email regarding continued ESA compliance within 90 days after a report is received.

As of the date of this signed form, WAPA concludes, through coordination and ongoing discussions with the Service, that the Philip Wind Project is not likely to adversely affect the NLEB. Philip Wind Partners, LLC commits in writing to WAPA and the Service via signature and inclusion of this NLEB consistency form, that the above measures will be implemented while the Service's final NLEB wind guidance is in effect. If applicable, the Project Company would coordinate these plans with the South Dakota Department Game, Fish, Parks (Mandy Pearson, mandy.pearson@state.sd.us), if the NLEB is a state-listed species or species of conservation concern.

The South Dakota Field Office is not authorized to provide guidance regarding the Service's OLE investigative priorities involving federally listed species. However, the Service, WAPA, and Philip Wind Partners, LLC understands that OLE carries out its mission to protect ESA-listed species through investigation and enforcement, as well as by fostering relationships with individuals, companies, and industries that have taken effective steps to minimize the likelihood of take such that it is not reasonably certain to occur for northern long-eared bats. It is not possible to absolve individuals or companies from liability for unpermitted take of listed species, even if such take occurs despite the implementation of appropriate minimization strategies to which the likelihood of take is not reasonably certain to occur, as described in this guidance. However, the OLE focuses its enforcement resources on individuals and companies that take listed species without identifying and implementing all reasonable, prudent, and effective measures to minimize the likelihood of take such that take is not reasonably certain to occur. To comply with the take prohibitions of the ESA, the facility would be willing to work with the Field Office to implement avoidance measures (e.g., not operating at night during the period of risk, etc.) and consider applying for an incidental take permit under 10(a)(1)(B) of the ESA, if needed.

If Philip Wind Partners, LLC follows the measures above, the Philip Wind Project is not likely to adversely affect the NLEB.



Suitable Summer Habitat
1,000-foot Connected Habitat Buffer
2.5 Mile Study Area
Project Area (March 2022)
County Boundary

Haakon County, SD
NAD 1983 UTM Zone 14N
44.2908°N 101.7495°W

0 1.5 3 Miles
0 2 4 Kilometers

N

1:255,000

Base Map: Esri ArcGIS Online, accessed November 2024
Updated: 11/21/2024
Project No. 75529
Layout: 75529_SummerNLEB
Aprx: 75529_PhilipWind_Reporting

SWCA ENVIRONMENTAL CONSULTANTS

Programmatic Biological Assessment Species Consistency Evaluation Form
Upper Great Plains Region Wind Energy Development Program
Impact Information and Consistency Determination

Piping plover *(Charadrius melodus)*

Project Name: Philip Wind Project

Company: Philip Wind Partners, LLC

Best Management Practices

[X] All general BMPs, as stated in the final *Programmatic Environmental Impact Statement for the Upper Great Plains Region Wind Energy Program* and table 4.5-1 of the final *Programmatic Biological Assessment for the Upper Great Plains Region Wind Energy Program,* will be implemented where appropriate, during each phase of the project (i.e., site characterization, construction, operations, and decommissioning). Although not all-inclusive, several of the more important BMPs for the conservation of this species follow.

- [X] Meteorological towers shall not be located in sensitive habitats or in areas where resources known to be sensitive to human activities (e.g., wetlands, cultural resources, and listed species) are present. Installation of towers shall be scheduled to avoid disruption of wildlife reproductive activities or other important behaviors, and the disturbed area will be minimized.
- [X] The use of guy wires on meteorological towers shall be avoided or minimized. Any needed guy wires shall have guys appropriately marked with approved bird flight diverters.
- [X] Place marking devices on any newly constructed or upgraded transmission lines, where appropriate, within suitable habitats for sensitive bird species.

Species-Specific Avoidance Measures

- [X] Conduct preconstruction evaluations and/or surveys in areas of potential occurrence to identify suitable habitat and areas of occurrence within project boundaries.
- [X] Do not site turbines, access roads, transmission lines, or other project facilities within the Missouri (including Niobrara River) and Yellowstone River system floodplains or any closer than 1.5 mi (2.4 km) from known/suitable sandbar habitat and reservoir shorelines with nesting, resting, and foraging areas.
- [X] Do not site turbines, access roads, transmission lines, or other project facilities within the Platte River (including Loup and Elkhorn Rivers) system floodplain or any closer than 1.5 mi (2.4 km) from known/suitable riverine habitat.
- [X] Do not site turbines, access roads, transmission lines, or other project facilities within 1.5 mi (2.4 km) of known sandpit nesting, resting, and foraging areas along the Platte River (including Loup and Elkhorn Rivers) system.
- [X] Do not site turbines, transmission lines, access roads, or other project facilities within 3.0 mi (4.8 km) of alkali lakes where piping plover nesting has been documented or those designated as critical habitat.
- [X] Do not site turbines, transmission lines, access roads, or other project facilities in between any alkali lakes identified with a 3.0 mi (4.8 km) buffer where the outer limit of the buffer zones are less than 3.0 mi (4.8 km) apart.
- [X] Do not site turbines, transmission lines, access roads, or other project facilities within 1.5 mi (2.4 km) of riverine designated critical habitat or 3.0 mi (4.8 km) of alkali wetlands designated as critical habitat.

Species-Specific Minimization Measures

Additional minimization measures specifically intended to reduce the potential for adverse effects on the piping plover have not been identified at this time. The identified avoidance measures together with general BMPs to reduce ecological impacts from wind energy under the proposed program adequately address the conservation measures for this species.

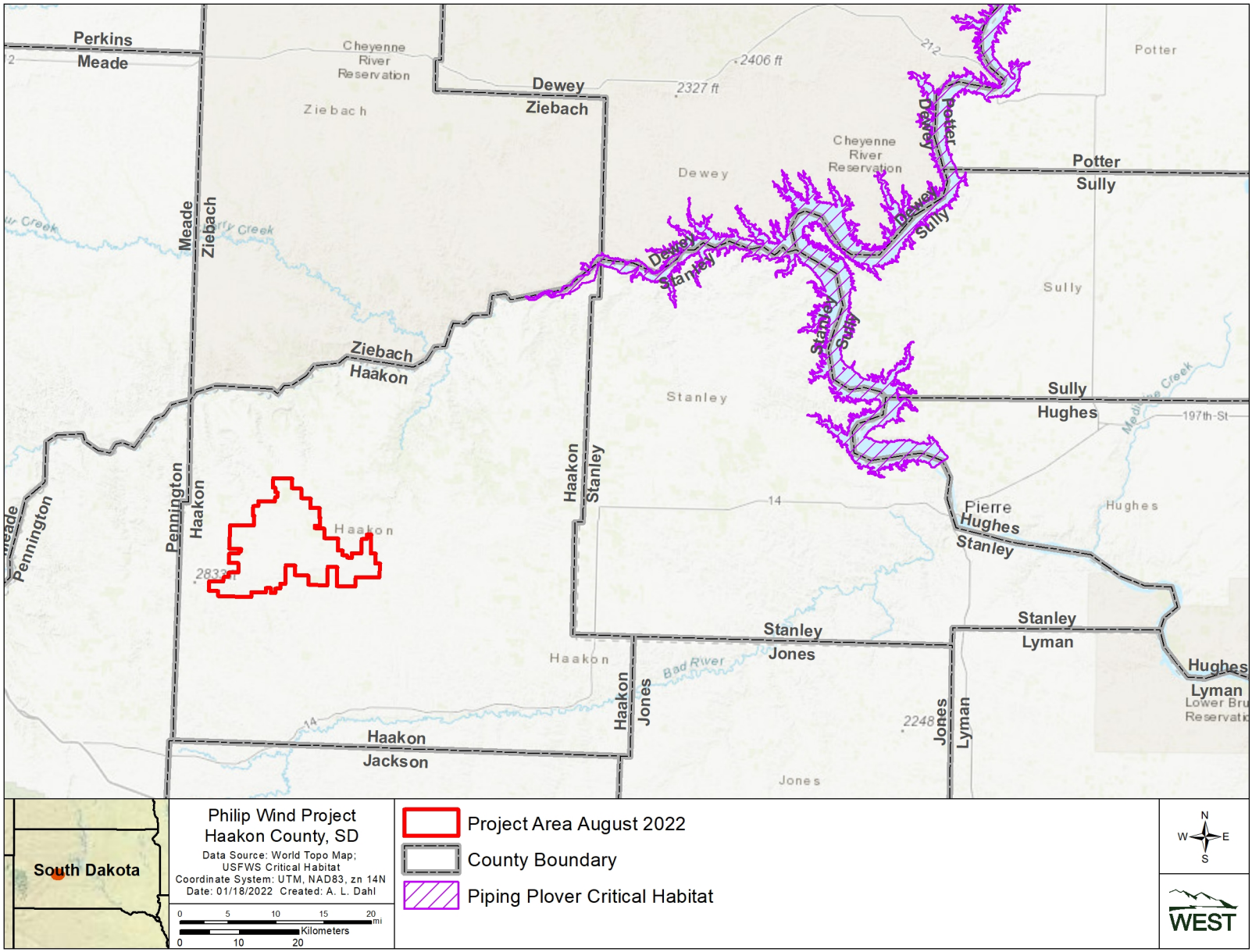
Programmatic Biological Assessment Species Consistency Evaluation Form
Upper Great Plains Region Wind Energy Development Program
Impact Information and Consistency Determination

Piping plover *(Charadrius melodus)*

Impact Information				
Project within county with recorded piping plovers?	☐ Yes	☒ No		
Preconstruction evaluations conducted with USFWS?	☒ Yes	☐ No	Dates:	Avian Use Surveys (Jan. 2022 - Mar. 2024)
Parties involved:	Philip Wind Partners, LLC; WEST, Inc.			
Suitable habitat in or near project footprint?	☐ Yes	☒ No		
Distance from suitable riverine, reservoir, or alkali lake habitat:	30 Miles			
Distance from designated critical habitat:	30 Miles			
Has habitat been surveyed to protocol?	☐ Yes	☒ No	Dates of survey:	
Result of survey:	☐ Occupied (species detected)		☐ Not occupied (species not detected)	
New overhead distribution/transmission lines proposed?	☒ Yes	☐ No		
Distance from occupied piping plover habitat:	~ 60 Miles	Nearest reported observation within habitat (eBird 2023)		
Marking with bird flight diverters proposed?	☒ Yes	☐ No		
Map of project footprint and species habitat attached?	☒ Yes	☐ No		

Effects—Explanation of consistency determination with programmatic effects determination of "may affect, not likely to adversely affect" or "no effect":

The Philip Wind Project (Project) is tiering from the Upper Great Plains PEIS and Programmatic Biological Assessment (PBA). No piping plover observations were recorded during the 513 hours (January – December 2022) of pre-construction avian use surveys (WEST 2022). The nearest reported piping plover is a 2014 sighting approximately 20 miles southwest from the Project (eBird, accessed January 2023). Most reported observations of piping plover occur around Pierre, SD, about 60 miles east of the Project within designated critical habitat for the species approximately 30 miles to the northeast of the Project (see map). No alkali lakes were observed within the Project area; however, in dry years piping plover could occur within dried up wetlands. There is limited to no suitable habitat within the Project area. Bird flight diverters and marking devices specified in the Programmatic Biological Assessment would be installed and maintained on newly constructed overhead lines following industry standards (APLIC 2012) for the life of the Project. In summary, WAPA has considered this information and determined that there is a low likelihood of collision risk and the Project may affect, but is not likely to adversely affect the piping plover.


Perkins
Meade
Cheyenne River Reservation
Ziebach
Dewey
Ziebach
2406 ft
2327 ft
Potter
Dewey
Potter
Cheyenne River Reservation
Dewey
Potter
Sully
Meade
Ziebach
Dewey
Stanley
Dewey
Sully
Stanley
Sully
Sully
Ziebach
Haakon
Stanley
Sully
Hughes
197th-St
Pennington
Haakon
Haakon
Stanley
14
Pierre
Hughes
Hughes
Stanley
Haakon
Stanley
Jones
Stanley
Lyman
Hughes
Lyman
Haakon
Bad River
Haakon
Jones
Jones
Lyman
2248
14
Haakon
Jackson
Jones
South Dakota
Philip Wind Project
Haakon County, SD
Data Source: World Topo Map; USFWS Critical Habitat
Coordinate System: UTM, NAD83, zn 14N
Date: 01/18/2022 Created: A. L. Dahl
0 5 10 15 20 mi
0 10 20 Kilometers
Project Area August 2022
County Boundary
Piping Plover Critical Habitat
N
W E
S
WEST

Programmatic Biological Assessment Species Consistency Evaluation Form
Upper Great Plains Region Wind Energy Development Program
Impact Information and Consistency Determination

Rufa red knot *(Calidris canutus rufa)*

Project Name: Philip Wind Project

Company: Philip Wind Partners, LLC

Best Management Practices

[X] All general BMPs, as stated in the final *Programmatic Environmental Impact Statement for the Upper Great Plains Region Wind Energy Program* and table 4.5-1 of the final *Programmatic Biological Assessment for the Upper Great Plains Region Wind Energy Program,* will be implemented where appropriate, during each phase of the project (i.e., site characterization, construction, operations, and decommissioning). Although not all-inclusive, several of the more important BMPs for the conservation of this species follow.

[X] The use of guy wires on meteorological towers shall be avoided or minimized. Any needed guy wires shall have guys appropriately marked with approved bird flight diverters.

[X] Place marking devices on any newly constructed or upgraded transmission lines, where appropriate, within suitable habitats for sensitive bird species.

Species-Specific Avoidance Measures

[X] Conduct preconstruction evaluations and/or surveys in areas of potential occurrence to identify suitable habitat and areas of occurrence within project boundaries.

Species-Specific Minimization Measures

Additional minimization measures specifically intended to reduce the potential for adverse effects on the rufa red knot have not been identified at this time. The identified general BMPs to reduce ecological impacts from wind energy under the proposed program adequately address the conservation measures for this species. Additional minimization measures specifically intended to reduce the potential for adverse effects on the rufa red knot have not been identified at this time. The identified general BMPs to reduce ecological impacts from wind energy under the proposed program adequately address the conservation measures for this species.

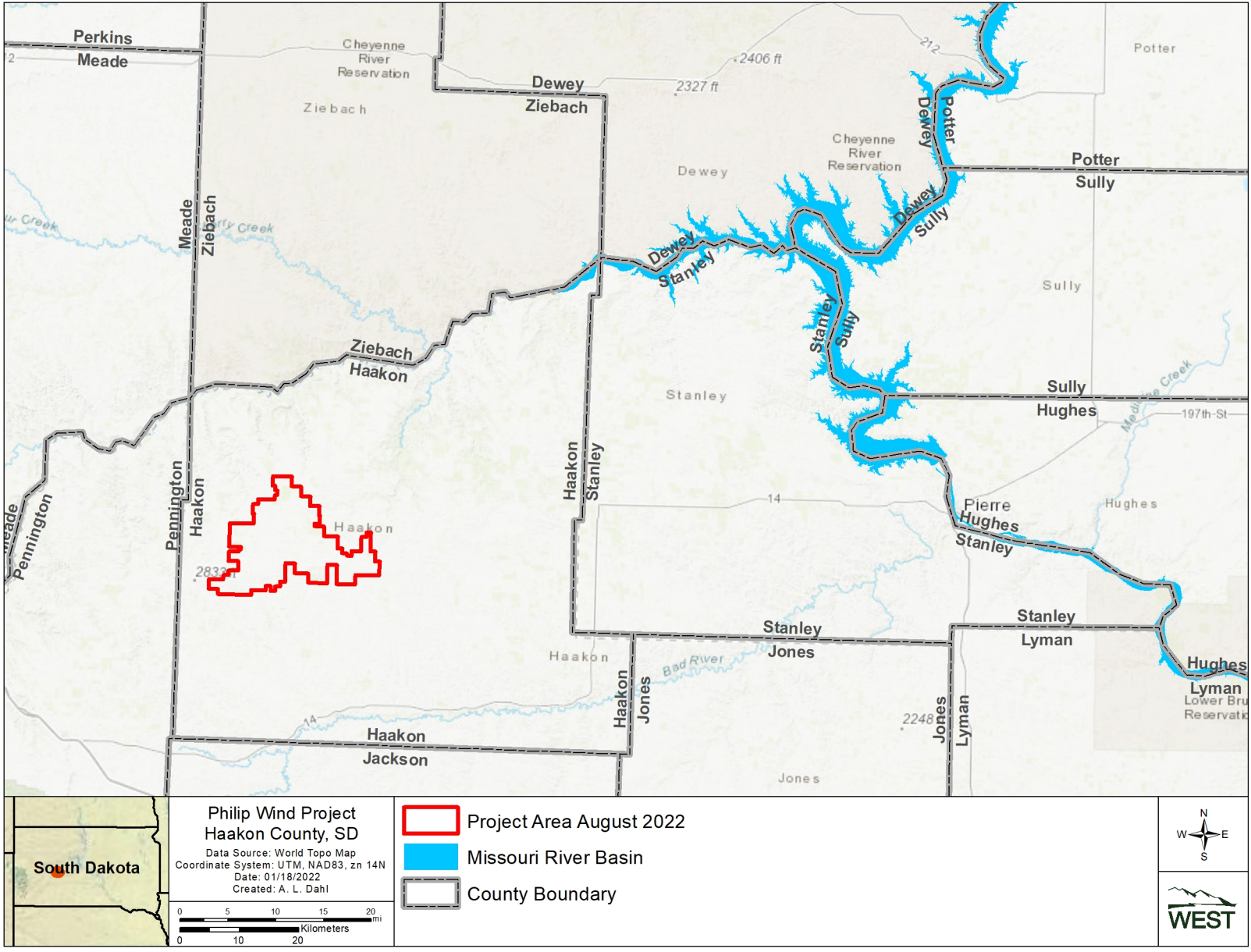
Coordinate with the local USFWS field office regarding new species information or conservation measures during planning stages.

Impact Information

Project within county with recorded rufa red knot as a transient?	[ ] Yes	[X] No	
Preconstruction evaluations conducted with USFWS?	[X] Yes	[ ] No	Dates: Avian Use Surveys (Jan. 2022 - Mar. 2024)
Parties involved:	Philip Wind Partners, LLC; WEST Inc.		
Suitable stopover habitat in or near project footprint?	[ ] Yes	[X] No	
Distance from suitable habitat:	30	Miles	
New overhead distribution/transmission lines proposed?	[X] Yes	[ ] No	
Distance from suitable stopover habitat?	~ 31	Miles	
Marking with approved bird flight diverters proposed?	[X] Yes	[ ] No	
Map of project footprint and species habitat attached?	[X] Yes	[ ] No	

Effects—Explanation of consistency determination with programmatic effects determination of "may affect, not likely to adversely affect" or "no effect":

The Philip Wind Project (Project) is tiering from the Upper Great Plains PEIS and Programmatic Biological Assessment (PBA). Pre-construction evaluations determined the nearest potential rufa red knot habitat is approximately 31 miles from the Project's boundary along the Missouri River basin (see map). No rufa red knot observations were recorded during the 513 hours (January – December 2022) of pre-construction avian use surveys (WEST 2022). The nearest reported rufa red knot, detected in 2002, is approximately 74 miles east of the Project (eBird, accessed January 2023). A second observation was recorded approximately 76 miles to the east of the Project and included nine individuals in May of 2016 (eBird, accessed January 2023). Bird flight diverters and marking devices specified in the Programmatic Biological Assessment would be installed and maintained on newly constructed overhead lines following industry standards (APLIC 2012) for the life of the Project. In summary, WAPA has considered this information and determined that there is a low likelihood of collision risk and the Project may affect, but is not likely to adversely affect the rufa red knot.


Perkins
Meade
Cheyenne River Reservation
Ziebach
Dewey
Ziebach
2406 ft
2327 ft
Potter
Dewey
Potter
Sully
Cheyenne River Reservation
Dewey
Meade
Ziebach
Dewey
Stanley
Dewey
Sully
Stanley
Sully
Sully
Ziebach
Haakon
Stanley
Sully
Hughes
197th St
Haakon
Stanley
Pennington
Haakon
Haakon
14
Pierre
Hughes
Hughes
Stanley
Pennington
Haakon
Stanley
Jones
Stanley
Lyman
Haakon
Bad River
Hughes
Lyman
Haakon
Jones
Jones
Lyman
2248
14
Haakon
Jackson
Jones
South Dakota
Philip Wind Project
Haakon County, SD
Data Source: World Topo Map
Coordinate System: UTM, NAD83, zn 14N
Date: 01/18/2022
Created: A. L. Dahl
0 5 10 15 20 mi
0 10 20 Kilometers
Project Area August 2022
Missouri River Basin
County Boundary
N
W E
S
WEST

Programmatic Biological Assessment Species Consistency Evaluation Form
Upper Great Plains Region Wind Energy Development Program
Impact Information and Consistency Determination

Whooping crane *(Grus americana)*

Project Name: Philip Wind Project

Company: Philip Wind Partners, LLC

Best Management Practices

[X] All general BMPs, as stated in the final *Programmatic Environmental Impact Statement for the Upper Great Plains Region Wind Energy Program* and table 4.5-1 of the final *Programmatic Biological Assessment for the Upper Great Plains Region Wind Energy Program,* will be implemented where appropriate, during each phase of the project (i.e., site characterization, construction, operations, and decommissioning). Although not all-inclusive, several of the more important BMPs for the conservation of this species follow.

- [X] The use of guy wires on meteorological towers shall be avoided or minimized. Any needed guy wires shall have guys appropriately marked with approved bird flight diverters.

Species-Specific Avoidance Measures

For projects that occur within the portion of the whooping crane migration corridor that encompasses 95 percent of historic sightings:

[X] Conduct preconstruction evaluations and/or surveys to identify wetlands that provide potentially suitable stopover habitat and areas of occurrence within project boundaries.

[ ] Do not site turbines, transmission lines, access roads, or other project facilities within 1 mi (1.6 km) of wetlands that provide suitable stopover habitat or within 5 mi (8 km) of the Platte or Niobrara Rivers in Nebraska.

[X] Do not site turbines, transmission lines, access roads, or other project facilities within 5 mi (8 km) of designated critical habitat.

Species-Specific Minimization Measures

For projects that that occur within the portion of the whooping crane migration corridor that encompasses 95 percent of historic sightings:

[X] Place approved bird flight diverters on the top static wire on any new or upgraded overhead collector, distribution, and transmission lines within 1 mi (1.6 km) of suitable stopover habitat.

[X] Establish a procedure for preventing whooping crane collisions with turbines during operations by establishing and implementing formal plans for monitoring the project site and surrounding area for whooping cranes during spring and fall migration periods throughout the operational life of the project (or as determined by the local USFWS field office) and shutting down turbines and/or construction activities within 2 mi (3.2 km) of whooping crane sightings. Monitoring can be done by existing onsite personnel trained in whooping crane identification. Specific requirements of the monitoring and shutdown plan will be determined during preconstruction evaluations. Sightings of whooping cranes in the vicinity of projects will be reported to the appropriate USFWS field office immediately.

[X] Instruct workers in the identification and reporting of sandhill and whooping cranes and to avoid disturbance of cranes present near project areas.

[X] The acreage of wetlands that are potentially suitable migratory stopover habitat located within a 0.5 mi (0.8 km) radius of turbines may be mitigated based upon site-specific evaluations.

Programmatic Biological Assessment Species Consistency Evaluation Form
Upper Great Plains Region Wind Energy Development Program
Impact Information and Consistency Determination

Whooping crane *(Grus americana)*

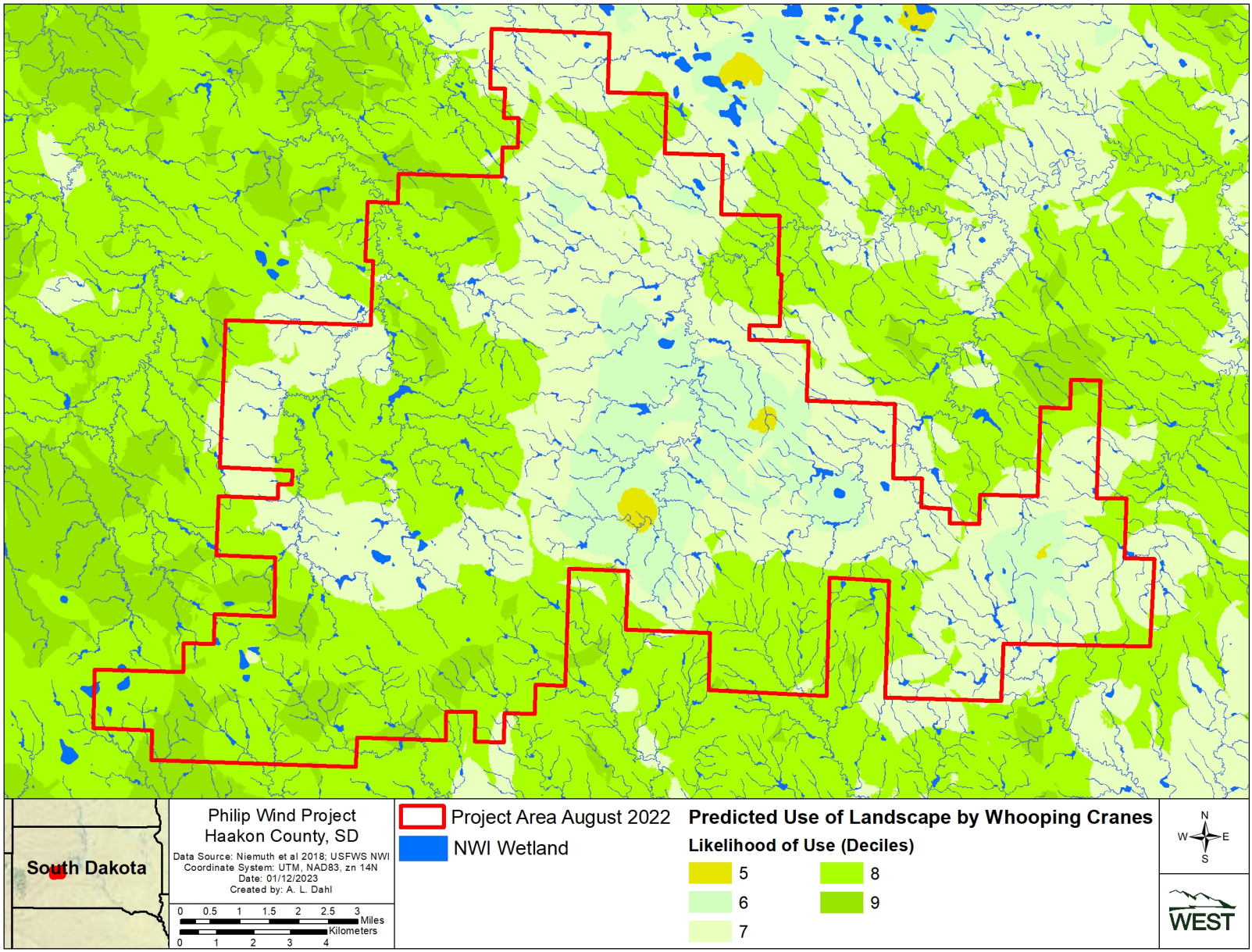
Impact Information			
Project within county with recorded whooping crane?	[X] Yes	[ ] No	
Preconstruction evaluations conducted with USFWS?	[X] Yes	[ ] No	Dates: Nov. 2022 - Jan. 2023
Parties involved:	Philip Wind Partners, LLC; WEST, Inc.		
Suitable habitat in or near project footprint?	[X] Yes	[ ] No	
Distance from suitable stopover habitat:	0	Miles	
Distance from designated critical habitat?	261	Miles	
Distance from the Platte or Niobrara River?	213 (Platte) 110 (Niobrara)	Miles	
New overhead distribution/transmission lines proposed?	[X] Yes	[ ] No	
Distance from suitable stopover habitat?	< 1.0	Miles	
Marking with approved bird flight diverters proposed?	[X] Yes	[ ] No	
Monitoring plan for spring/fall migration (copy attached)?	[X] Yes	[ ] No	
Employees trained in identification of whooping cranes?	[X] Yes	[ ] No	
Shut-down protocol for sitings within 2 mi (3.2 km) (attached)?	[X] Yes	[ ] No	
Map of project footprint and species habitat attached?	[X] Yes	[ ] No	

Effects—Explanation of consistency determination with programmatic effects determination of "may affect, not likely to adversely affect" or "no effect":

The Philip Wind Project (Project) is tiering from the Upper Great Plains PEIS and Programmatic Biological Assessment (PBA). All conditions prescribed by the Consistency Evaluation Form for whooping crane have been met with the exception of the species-specific avoidance measure stipulating that Project infrastructure not be sited within one mile of wetlands that may provide suitable stopover habitat. We provide a mitigation solution following the species-specific minimization measure in the consistency form that indicates that impacts to potentially suitable migratory stopover habitat located within a 0.5 mile (mi) radius of turbines may be mitigated based on site-specific evaluation.

Niemuth et al. (2018) developed a model that used 13 variables to identify whooping crane relative probability of use across the landscape in North and South Dakota. This probability dataset was then divided into 10 equal-area bins, or deciles, to aid in conservation planning (Niemuth et al. 2018). For this Project, suitable habitat for whooping cranes was defined as wetlands (NWI; USFWS 2021) that intersect the five highest use deciles (Niemuth et al. 2018).

To determine the total acreage of suitable whooping crane stopover habitat for mitigation, the total acres of NWI that overlapped with the five deciles of highest whooping crane use (Niemuth et al. 2018) within 0.5 mi of proposed turbine locations was calculated. This resulted in a total of 5.0 acres of wetlands for mitigation (see map) that the Project commits to fund (including third-party administrative fees) through a third-party mitigation provider that will independently acquire and manage the mitigation habitat within the South Dakota 95% whooping crane corridor and within the top five deciles of the Niemuth et al. (2018) model, or any 5.0 wetland acres within the South Dakota 50% whooping crane corridor. The third-party mitigation provider shall be responsible for protecting the wetlands in perpetuity and may include existing, restored, or created wetlands. Documentation of funding by the Project to the third-party mitigation provider shall be provided to WAPA prior to Project interconnection. Furthermore, bird flight diverters and marking devices specified in the Programmatic Biological Assessment would be installed and maintained on newly constructed overhead lines following industry standards (APLIC 2012) for the life of the Project. In summary, WAPA has considered this information and determined that the Project may affect, but is not likely to adversely affect the whooping crane.


South Dakota
Philip Wind Project
Haakon County, SD
Data Source: Niemuth et al 2018; USFWS NWI
Coordinate System: UTM, NAD83, zn 14N
Date: 01/12/2023
Created by: A. L. Dahl
0 0.5 1 1.5 2 2.5 3 Miles
0 1 2 3 4 Kilometers
Project Area August 2022
NWI Wetland
Predicted Use of Landscape by Whooping Cranes
Likelihood of Use (Deciles)
5
6
7
8
9
N
W
E
S
WEST